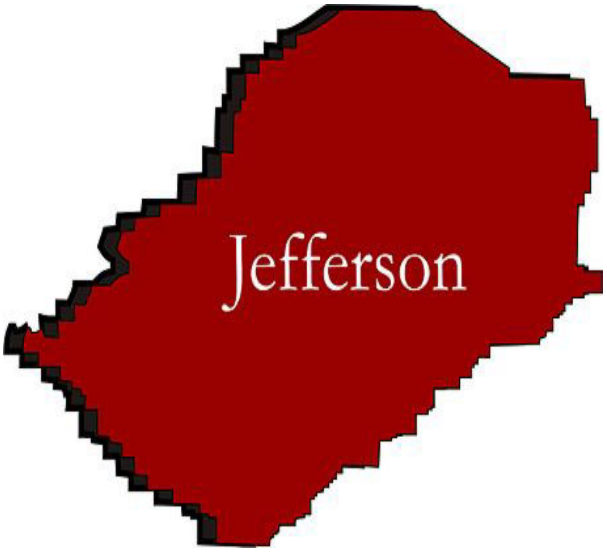
Jefferson County LWIA Workforce Report



Summary

- Jefferson County had a 4.6 percent unemployment rate in August 2005, with about 15,100 unemployed. However, the county has a large 85,900-strong available labor pool that is looking for better jobs and includes 70,800 underemployed workers. The underemployed are willing to commute farther and longer. For the one-way commute, 43 percent are prepared for 20 or more minutes longer and 45 percent will go 20 or more extra miles.

- In 2000, 89,400 commuted into the county for work, compared to 26,800 residents who worked outside the county. Each of the neighboring counties provided at least 1,600 in-commuters. About 50,000 in-commuters lived in two counties; Shelby and St. Clair. The high level of commuting suggests that roads and highways must be maintained properly to ensure uninterrupted movement of workers and not slow economic development.

- The county's educational attainment is much higher than for the state. Of the age 25 and over population, Alabama has 75 percent high school graduates and 19 percent bachelor's or higher degree holders, compared to about 81 percent and 25 percent, respectively, for the county.

- Employment is currently growing faster than the labor force and population. This will intensify commuter inflow and worsen traffic congestion. Workforce development initiatives that tackle this challenge might consider (i) focusing on hard-to-serve populations (e.g. out-of-school youth and illiterate adults), (ii) helping communities gain new residents, and (iii) facilitating in-commuting. Hard-to-serve populations are often outside of the mainstream economy, poor, and have difficulty finding work. They are potential labor force participants and some investment in training, transportation, child care, infrastructure, etc. may be needed to tap this resource. Increasing the number of residents is generally more beneficial to communities than in-commuting. However, communities must be prepared to invest in amenities and infrastructure to support population growth. Facilitating in-commuting should be a short-term strategy.

- By sector, the top five employers in the county are health care and social assistance, retail trade, manufacturing, finance and insurance, and accommodation and food services. These five industries provided 188,551 jobs, about half of the county total in the second quarter of 2004. Three of these leading employers—finance and insurance, manufacturing, and health care and social assistance—had average monthly wages that were above the $3,107 countywide average.

- On average about 18,100 jobs were created per quarter from second quarter 2001 to second quarter 2004; quarterly net job flows averaged 544. Job creation is the number of new jobs that are created either by new area businesses or through expansion of existing firms. Net job flows reflect the difference between current and previous employment at all businesses.

- Three occupations are both high-demand and fast-growing: Home Health Aides; Security Guards; and Licensed Practical and Licensed Vocational Nurses. The top five high-demand occupations are Retail Salespersons; Cashiers; Laborers and Freight, Stock, and Material Movers, Hand; Waiters and Waitresses; and Combined Food Preparation and Serving Workers. The top five fast-growing occupations are Home Health Aides; Residential Advisors; Medical Assistants; Medical Records and Health Information Technicians; and Social and Human Service Assistants.

- The top 50 highest earning occupations are mainly in health, legal, management, engineering, computer, science, and postsecondary education fields. Nine of the top 10 are health occupations (e.g. anesthesiologists and surgeons). Almost all high-earning occupations require bachelor's or higher degrees.

- Fast-growing or high-demand occupations are generally not high-earning. Of 36 selected high-demand, 30 selected fast-growing, and 50 selected high-earning occupations, only one high-earning occupation, General and Operations Managers, is in the high-demand category. Two computer software engineering occupations are both high-earning and fast-growing: Computer Software Engineers, Applications and Computer Software Engineers, Systems Software.

- The most relevant skills for high-demand and fast-growing occupations are basic: active listening, reading comprehension, speaking, writing, and service orientation. High-demand and high-growth occupations are also common to the leading employment sectors. Economic development should aim to diversify and strengthen the county's economy by retaining, expanding, and attracting more high-wage providing industries.

- The finding that basic skills are important—for high-demand, fast-growing, and high-earning jobs—indicates a strong need for training in these skills. Ideally, all high school graduates should possess basic skills so that postsecondary and higher education can focus on other and more complex skills as well as enhancing these basic skills. Employers should be an integral part of planning for training as they can help identify future skill needs and any existing gaps.

- Skill and education requirements for jobs keep rising, strongly emphasizing the need to raise educational attainment in the county. Workforce and economic development should involve postsecondary and higher education institutions to address this issue. Higher incomes to graduates from these institutions would help to raise personal income for the county. Raising personal income by improving educational attainment for a county that has low population and labor force growth rates is an effective economic development strategy.

- A highly educated and productive workforce is a critical economic development asset. Together, workforce development and economic development can provide this asset and build a strong well-diversified county economy. Indeed, one cannot achieve success without the other.

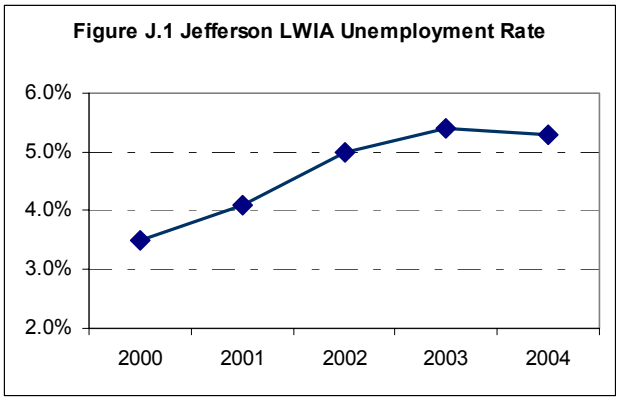
Workforce Supply

Labor Force Activity

The labor force includes all persons in the civilian noninstitutional population who are age 16 and over and who have, or are actively looking for, a job. Typically, those who have no job and are not looking for one are not included (e.g. students and retirees). Jefferson County labor force information in Table J.1 shows the unemployment rate falling from 5.3 percent for 2004 to 4.6 percent in August 2005 as the number of employed residents grew faster than the labor force.

Annual unemployment rates for 2000 to 2004 are shown in Figure J.1. The county's unemployment rose from 3.5 percent in 2000 to 5.4 percent in 2003, as its number of employed residents fell faster than its labor force. The rate has been declining with employment gains in 2004 and 2005. Employment in the region averaged 383,500 quarterly from the second quarter of 2001 to third quarter 2004 (Figure J.2). The low point was recorded in the second quarter of 2003 but employment has been slowly recovering with increasing economic activity. Employment refers to the number of full-time and part-time jobs.

Figure J.1 Jefferson LWIA Unemployment Rate



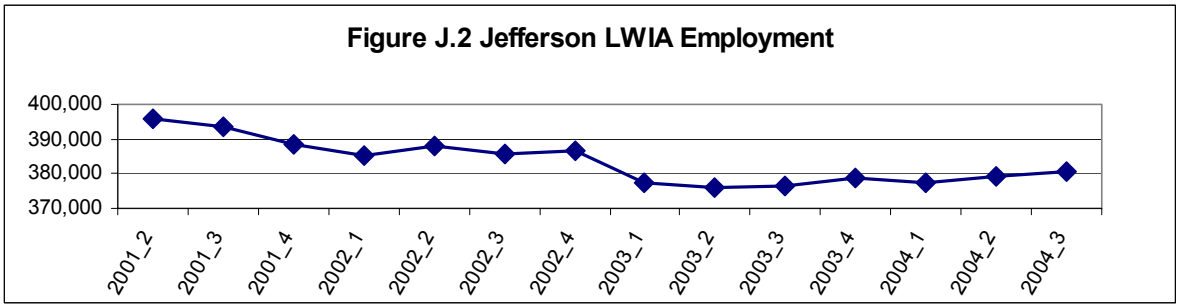
Source: Alabama Department of Industrial Relations.

Table J.1 Jefferson County LWIA Labor Force Information

	2004			
	Labor Force	Employed	Unemployed	Rate
Jefferson County	325,242	308,135	17,107	5.26%
Alabama	2,148,766	2,029,314	119,452	5.56%
U.S.	147,401,000	139,252,000	8,149,000	5.53%
	2005 August			
	Labor Force	Employed	Unemployed	Rate
Jefferson County	329,752	314,687	15,065	4.57%
Alabama	2,155,745	2,065,528	90,217	4.18%
U.S.	150,469,000	143,142,000	7,327,000	4.87%

Source: Alabama Department of Industrial Relations and U.S. Bureau of Labor Statistics.

Figure J.2 Jefferson LWIA Employment



Source: Alabama Department of Industrial Relations and U.S. Census Bureau.

Commuting Patterns

In 2000, more people commuted into the county for work than commuted out (Table J.2). Net commuter inflow was about 62,600. About 50,000 in-commuters came from Shelby and St. Clair counties. The county has the opportunity to attract new residents or entice former residents to return. Table J.2 also shows the one-way average commute time and distance for workers in 2004; the data were collected as part of a survey on underemployment. The one-way commute takes less than 20 minutes for 53 percent of workers, but more than 40 minutes for 8 percent, with nearly 1 percent exceeding one hour.

Table J.2 Jefferson LWIA Commuting Patterns

Area	Inflow, 2000			Outflow, 2000	
	Number	Percent		Number	Percent
Jefferson County	89,409	100.0		26,788	100.0

Average commute time (one-way), 2004

	Percent of workers
Less than 20 minutes	53.0
20 to 40 minutes	35.4
40 minutes to an hour	7.2
More than an hour	0.9

Average commute distance (one-way), 2004

	Percent of workers
Less than 10 miles	40.6
10 to 25 miles	39.1
25 to 45 miles	12.2
More than 45 miles	3.2

Note: Rounding errors may be present.

Source: U.S. Census Bureau and Alabama Department of Industrial Relations.

The commute is less than 10 miles for 41 percent of workers and 39 percent travel 10 to 25 miles. About 15 percent of workers travel more than 25 miles one-way, with roughly 3 percent exceeding 45 miles. This commuting data suggest that roads and highways must be maintained properly to ensure uninterrupted movement of workers and not slow economic development.

Population

The Jefferson County population estimate of about 658,500 for 2004 is half a percent less than was recorded for 2000 (Figure J.3 and Table J.3). However, the region's population is projected to grow nearly 2 percent in this decade to almost 673,800 by 2010. This low projected population growth suggests that if employment growth continues its fast pace, in-commuting will be intensified and traffic congestion would worsen unless workers are persuaded to reside in the county. Cities and the county may need to invest in amenities and infrastructure to attract new residents.

Figure J.3 Jefferson County LWIA Population

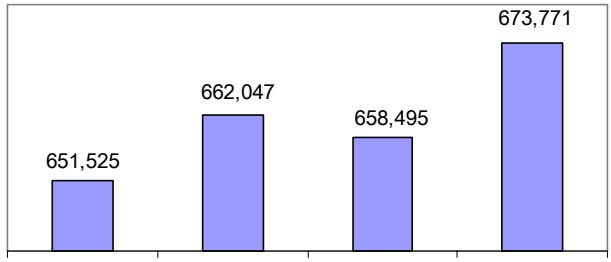


Table J.3 Jefferson County LWIA Population

	1990 Census	2000 Census	2004 Estimate	% Change 2000-2004	2010 Projected	% Change 2000-2010
Jefferson County LWIA	651,525	662,047	658,495	-0.5	673,771	1.8
Alabama	4,040,587	4,447,100	4,530,182	1.9	4,838,812	8.8
U.S.	248,709,873	281,421,966	296,655,404	5.4	314,571,000	11.8

Source: Center for Business and Economic Research, The University of Alabama and U.S. Census Bureau.

Educational Attainment

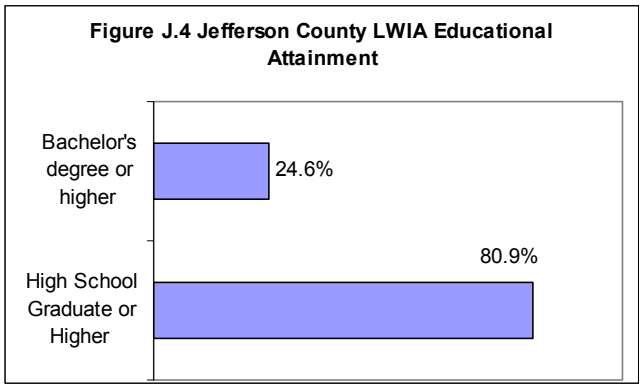
Educational attainment of Jefferson County residents who are 25 years old and over is shown below in Table J.4 and Figure J.4. About 81 percent graduated from high school and nearly a quarter hold bachelor's or higher degrees. Educational attainment is important as skills rise with education and high wage 21st century jobs demand more skill sets.

Per Capita Income

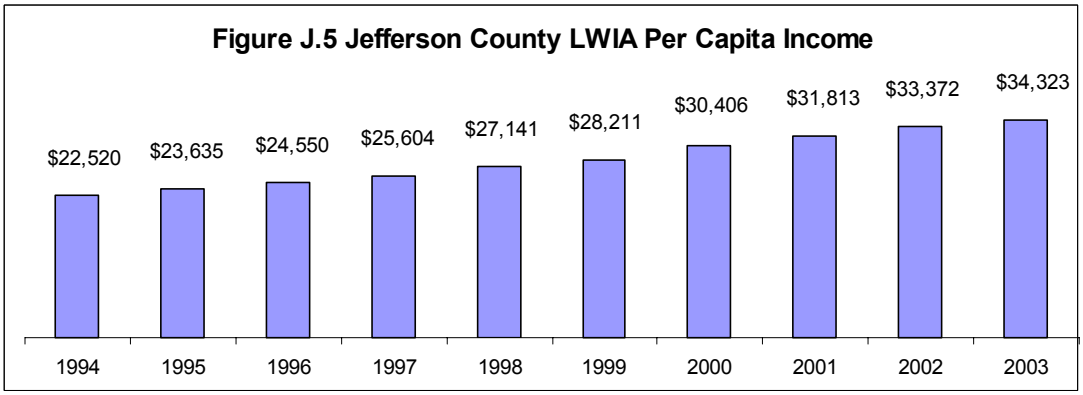
Jefferson County per capita income (PCI) was at $34,323 in 2003 (Figure J.5). This PCI was up by about 52 percent from 1994. The county's 2003 PCI was also $7,818 more than Alabama's $26,505, almost 30 percent higher.

Table J.4 Educational Attainment in 2000, Population 25 Years and Over

	Jefferson County LWIA
Total	434,158
No schooling completed	4,227
Nursery to 4th grade	1,708
5th and 6th grade	5,904
7th and 8th grade	12,461
9th grade	11,360
10th grade	13,932
11th grade	14,635
12th grade, no diploma	18,723
High school graduate/equivalent	121,233
Some college, less than 1yr	27,914
Some college, 1+ yrs, no degree	70,628
Associate degree	24,600
Bachelor's degree	68,866
Master's degree	23,560
Professional school degree	10,532
Doctorate degree	3,875



Source: Center for Business and Economic Research, The University of Alabama and U.S. Census Bureau.



Source: U.S. Bureau of Economic Analysis and Center for Business and Economic Research, The University of Alabama.

Underemployment and Available Labor

Labor force data are often limited to information on the employed and the unemployed that is available from government sources. However, this information is not complete from the perspective of employers. New or expanding employers are also interested in underemployment because current workers are potential employees. Experience requirements, starting wages and salary ranges, and signing bonuses in job ads suggest that many prospective employers look beyond the unemployed for workers.

Workers in occupations that underutilize their experience, training, and skills are underemployed. These workers might look for other work because their current earnings are below what they believe they can get or because they wish to not be underemployed. Underemployment occurs for various reasons including (i) productivity growth, (ii) spousal employment and income, and (iii) family constraints or personal preferences. The various contributing factors combined with economic, social, and geographic characteristics of areas make underemployment unique to areas.

The existence of underemployment identifies economic potential that is not being realized. It is extremely difficult to measure this economic potential because of uncertainties regarding additional income that the underemployed can bring to an area. It is clear, however, that underemployment provides opportunities for selective job creation and economic growth. A business that needs skills prevalent among the underemployed could locate in WIAAs with such workers regardless of those areas' unemployment rates. A low unemployment rate, which may falsely suggest limited labor availability, is not a hindrance to the business.

The underemployed present a significant pool of labor because they tend to respond to job opportunities that they believe are better for reasons that include (i) higher income, (ii) better benefits, (iii) better terms and conditions of employment, and (iv) better match with skills, training, and experience. The underemployed also create opportunities for entry level workers as they leave lower-paying jobs for better-paying ones. Even if their previously held positions are lost or not filled (perhaps due to low unemployment), there is economic growth in gaining higher-paying jobs. Such income growth boosts consumption, savings, and tax collections. Quantifying the size of the underemployed is a necessary first step in exploiting it for economic development, workforce training, planning, and other uses.

The Jefferson County LWIA had an underemployment rate of 22.5 percent in 2004. Applying this rate to August 2005 labor force data means that about 70,800 employed residents were underemployed (Table J.5). Adding the unemployed gives a total available labor pool of about 85,900 for the county. This pool is 5.7 times the number of unemployed and is a more realistic measure of the available labor in the county. However, prospective employers must be prepared to offer the underemployed higher wages, better benefits or terms of employment, or some other incentives to induce them to change jobs.

Table J.5 Available Labor

	Jefferson County LWIA
Labor Force	329,752
Employed	314,687
Underemployment rate	22.5%
Underemployed workers	70,805
Unemployed	15,065
Available labor pool	**85,870**

Note: Rounding errors may be present. Based on August 2005 labor force data and 2004 underemployment rates.

Source: Center for Business and Economic Research, The University of Alabama and Alabama Department of Industrial Relations.

Workforce Demand

Industry Mix

The health care and social assistance sector was the leading employer with about 50,900 jobs in the second quarter of 2004, followed by retail trade with 162 fewer jobs (Table J.6). Rounding up the top five industries by employment are manufacturing, finance and insurance, and accommodation and food services. These five industries provided 188,551 jobs, about half of the county total.

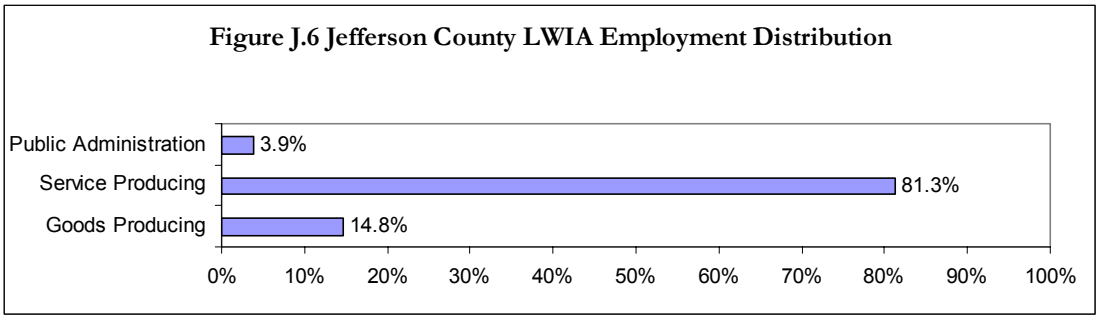
The average monthly wage across all industries in the county was $3,107. Of the leading employers, retail trade and accommodation and food services paid less than this average; finance and insurance paid the highest with $4,128. Overall, the highest average monthly wages were for utilities ($5,528), mining ($4,423), and professional, scientific, and technical services ($4,322). Accommodation and food services paid the least at $1,311. Utilities also had the highest average monthly new hire wages with $3,847. Accommodation and food services paid the least again with $957.

Table J.6 Industry Mix (2nd Quarter 2004)

Industry by 2-digit NAICS Code	Total Employment	Share	Rank	Average Monthly Wage	Average Monthly New Hire Earnings
11 Agriculture, Forestry, Fishing and Hunting	85	0.02%	20	$2,160	$1,942
21 Mining	1,531	0.40%	19	$4,423	$3,660
22 Utilities	5,630	1.49%	16	$5,528	$3,847
23 Construction	23,245	6.15%	8	$3,377	$2,573
31-33 Manufacturing	30,909	8.18%	3	$3,726	$2,490
42 Wholesale Trade	22,638	5.99%	9	$4,000	$2,904
44-45 Retail Trade	50,764	13.43%	2	$2,092	$1,307
48-49 Transportation and Warehousing	10,131	2.68%	14	$3,095	$2,170
51 Information	11,685	3.09%	12	$4,229	$3,560
52 Finance and Insurance	29,287	7.75%	4	$4,128	$3,392
53 Real Estate and Rental and Leasing	6,185	1.64%	15	$3,006	$2,011
54 Professional, Scientific, and Technical Services	24,385	6.45%	7	$4,322	$2,879
55 Management of Companies and Enterprises	5,222	1.38%	17	$4,234	$2,346
56 Administrative and Support and Waste Management and Remediation Services	22,364	5.92%	10	$2,061	$1,513
61 Educational Services	26,205	6.93%	6	$2,856	$1,470
62 Health Care and Social Assistance	50,926	13.47%	1	$3,126	$2,218
71 Arts, Entertainment, and Recreation	3,708	0.98%	18	$1,815	$1,182
72 Accommodation and Food Services	26,665	7.05%	5	$1,311	$957
81 Other Services (except Public Administration)	11,600	3.07%	13	$2,458	$1,780
92 Public Administration	14,876	3.94%	11	$3,240	$2,026
ALL INDUSTRIES	378,041	100.00%		$3,107	

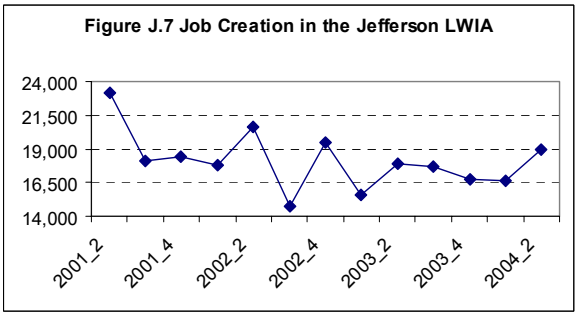
Source: Alabama Department of Industrial Relations and U.S. Census Bureau.

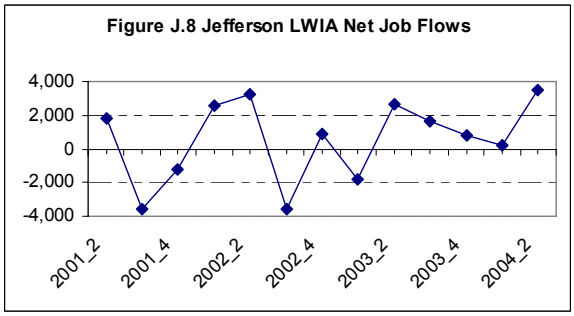
By broad industry classification, service producing industries provided 81 percent of jobs in second quarter 2004 (Figure J.6). Goods producing industries were next with about 15 percent and public administration 4 percent. This distribution is for all jobs in the county.



Job Creation and Net Job Flows

On average, about 18,100 jobs were created per quarter from second quarter 2001 to second quarter 2004. Figure J.7 shows job creation on a downward trend over the period, but clearly rising in 2004. Quarterly net job flows averaged 544 in the same period (Figure J.8). Net job flows have ranged from a loss of about 3,500 to a gain of the same. Job creation refers to the number of new jobs that are created either by new area businesses or through the expansion of existing firms. Net job flows reflect the difference between current and previous employment at all businesses.





Source: Alabama Department of Industrial Relations and U.S. Census Bureau.

High-Demand Occupations

Table J.7 shows the top 36 of about 540 occupations ranked by projected demand for jobs. Many of these occupations are common to the leading employment sectors identified earlier: health care and social assistance; retail trade; manufacturing, finance and insurance, and accommodation and food services. These sectors will continue to dominate employment in the county. The top five high-demand occupations are Retail Salespersons; Cashiers; Laborers and Freight, Stock, and Material Movers, Hand; Waiters and Waitresses; and Combined Food Preparation and Serving Workers.

Table J.7 Selected High-Demand Occupations (Base Year 2002 & Projected Year 2012)

Occupation	Annual Average Job Openings		
	Total	Due to Growth	Due to Separations
Retail Salespersons	930	250	680
Cashiers	930	215	715
Laborers and Freight, Stock, and Material Movers, Hand	650	180	470
Waiters and Waitresses	640	160	480
Combined Food Preparation and Serving Workers	620	225	395
Registered Nurses	520	295	225
General and Operations Managers	470	200	270
Office Clerks, General	465	170	295
Customer Service Representatives	395	220	175
Sales Representatives, Except Technical and Scientific Products	380	180	200
Truck Drivers, Heavy and Tractor-Trailer	345	205	140
Bookkeeping, Accounting, and Auditing Clerks	325	110	215
Secretaries, Except Legal, Medical, and Executive	310	80	230
Security Guards**	295	175	120
First-Line Supervisors/Managers, Retail Sales	265	125	140
Maids and Housekeeping Cleaners	255	145	110
Janitors and Cleaners, Except Maids	255	125	130
Nursing Aides, Orderlies, and Attendants	250	165	85
Licensed Practical and Licensed Vocational Nurses**	250	140	110
Teacher Assistants	230	130	100
Receptionists and Information Clerks	230	130	100
Accountants and Auditors	215	110	105
First-Line Supervisors/Managers of Office and Administrative Support Workers	210	70	140
Child Care Workers	210	90	120
Elementary School Teachers, Except Special Education	180	95	85
Maintenance and Repair Workers, General	180	85	95
Landscaping and Groundskeeping Workers	165	75	90
Executive Secretaries and Admin. Assistants	150	60	90
Automotive Service Technicians and Mechanics	150	60	90
Electricians	140	80	60
Secondary School Teachers, Except Special Education	135	65	70
Home Health Aides**	135	115	20
Counter and Rental Clerks	125	55	70
Truck Drivers, Light or Delivery Services	125	90	35
Cooks, Institution and Cafeteria	125	50	75
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific	125	55	70

Note: A minimum of 125 average annual job openings is used as selection criterion and data are rounded to nearest 5.

** Qualify as both high-demand and fast-growing occupations.

Source: Alabama Department of Industrial Relations.

Fast-Growing Occupations

The top 30 of occupations ranked by projected growth of employment are listed in Table J.8. Forty percent of these occupations are in health or health support. The top five high growth occupations are Home Health Aides; Residential Advisors; Medical Assistants; Medical Records and Health Information Technicians; and Social and Human Service Assistants. Three occupations are both high-demand and fast-growing: Home Health Aides; Security Guards; and Licensed Practical and Licensed Vocational Nurses.

Table J.8 Selected Fast-Growing Occupations (Base Year 2002 & Projected Year 2012)

Occupation	Employment 2002	Employment 2012	Percent Change	Annual Growth (Percent)	Total Annual Average Job Openings
Home Health Aides**	1,640	2,790	70.1	5.46	135
Residential Advisors	160	250	56.3	4.56	15
Medical Assistants	1,080	1,670	54.6	4.46	80
Medical Records and Health Information Technicians	650	990	52.3	4.30	45
Social and Human Service Assistants	800	1,210	51.3	4.22	55
Computer Software Engineers, Systems Software	660	980	48.5	4.03	35
Network Systems and Data Communications Analysts	560	820	46.4	3.89	30
Physical Therapist Assistants	240	350	45.8	3.85	15
Fitness Trainers and Aerobics Instructors	700	1,020	45.7	3.84	45
Occupational Therapists	200	290	45.0	3.79	15
Dental Assistants	740	1,070	44.6	3.76	50
Preschool Teachers, Except Special Education	1,180	1,690	43.2	3.66	65
Dental Hygienists	540	770	42.6	3.61	30
Personal and Home Care Aides	830	1,170	41.0	3.49	50
Speech-Language Pathologists	230	320	39.1	3.36	15
Emergency Medical Technicians and Paramedics	590	820	39.0	3.35	30
Physical Therapists	340	470	38.2	3.29	20
Computer Software Engineers, Applications	1,130	1,560	38.1	3.28	55
Choreographers	160	220	37.5	3.24	15
Security Guards**	4,650	6,380	37.2	3.21	295
Database Administrators	330	450	36.4	3.15	15
Public Relations Managers	690	940	36.2	3.14	35
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,620	2,200	35.8	3.11	80
Directors, Religious Activities and Education	880	1,190	35.2	3.06	40
Aircraft Mechanics and Service Technicians	370	500	35.1	3.06	25
Production, Planning, and Expediting Clerks	1,140	1,540	35.1	3.05	70
Public Relations Specialists	430	580	34.9	3.04	20
Veterinary Assistants and Laboratory Animal Caretakers	460	620	34.8	3.03	25
Computer Support Specialists	1,870	2,520	34.8	3.03	90
Licensed Practical and Licensed Vocational Nurses**	4,100	5,510	34.4	3.00	250

Note: Selection criterion is an annual growth rate of at least 3.0 percent. Employment level data are rounded to the nearest 10 and job openings data are rounded to the nearest 5.

** Qualify as both high-demand and fast-growing occupations.

Source: Alabama Department of Industrial Relations.

High-Earning Occupations

Any discussion of earnings must consider that wages vary with experience. Occupations with the highest entry wages may not necessarily have the highest average or experienced wages. Table J.9 shows 50 selected highest earning occupations in the county. The selected high-earning occupations are mainly in health, legal, management, engineering, computer, science, and postsecondary education fields. Nine of the top 10 are health occupations. The selected high-earning occupations are generally not fast-growing or high-demand. Only one high-earning occupation, General and Operations Managers, is in the high-demand category. Two computer software engineering occupations are both high-earning and fast-growing: Computer Software Engineers, Applications and Computer Software Engineers, Systems Software.

Table J.9 Selected High-Earning Occupations

Occupation	Mean Annual Salary ($)
Anesthesiologists	196,976
Surgeons	180,856
Obstetricians and Gynecologists	176,010
Internists, General	169,749
Family and General Practitioners	146,370
Pediatricians, General	144,581
Podiatrists	142,667
Psychiatrists	137,197
Chief Executives	135,304
Dentists, General	134,410
Law Teachers, Postsecondary	111,970
Lawyers	106,933
Engineering Managers	96,200
Physicists	93,974
Computer and Information Scientists, Research	90,459
Natural Sciences Managers	88,795
Personal Financial Advisors	88,046
General and Operations Managers	85,821
Aerospace Engineers	84,344
Mathematicians	83,366
Pharmacists	83,075
Actuaries	82,680
Optometrists	81,806
Real Estate Brokers	81,723
Computer and Information Systems Managers	81,078
Health Specialties Teachers, Postsecondary	80,930
Marketing Managers	79,435
Computer Hardware Engineers	79,414
Sales Managers	78,957
Electronics Engineers, Except Computer	78,686
Securities, Commodities, and Financial Services Sales Agents	78,458
Environmental Engineers	76,960
Computer Software Engineers, Systems Software	76,794
Chemical Engineers	76,502
Materials Scientists	76,128
Financial Managers	76,003
Airline Pilots, Copilots, and Flight Engineers	74,870
Atmospheric and Space Scientists	73,008
Medical and Health Services Managers	72,925
Electrical Engineers	72,904
Purchasing Managers	72,488
Engineering Teachers, Postsecondary	72,320
Computer Software Engineers, Applications	71,698
Biochemists and Biophysicists	70,970
Mechanical Engineers	70,221
Education Administrators, Postsecondary	69,618
Industrial Production Managers	69,056
Management Analysts	68,806
Veterinarians	68,619
Construction Managers	67,163

Note: The list of occupations is specific to the region, but earnings are statewide. Only the 50 highest earning single occupations are presented. The list does not include occupations that are affected by confidentiality. Some high-earning occupational groups are not listed because earnings can vary considerably for occupations within these groups. Employment data are rounded to the nearest 10. The data provided are based on the November 2004 release of the Occupational Employment Statistics (OES) combined employment and wage file. Estimates for specific occupations may include imputed data.

"NA" indicates data items that are not publishable or not available.

Source: Center for Business and Economic Research, The University of Alabama and Alabama Department of Industrial Relations.

Other Workforce Issues

Available Labor

Employment is a critical input to economic development. Availability of labor is thus very important. Jefferson County has a large 85,900-strong available labor pool that is looking for better jobs, typically higher-wage ones. This pool is made up of about 70,800 underemployed and 15,100 unemployed. The county's underemployed workers are willing to commute farther and longer; 43 percent are prepared for 20 or more minutes longer and 45 percent will go 20 or more extra miles.

Low wages at available jobs, a lack of job opportunities in their areas, and child care and family responsibilities are the primary reasons given for being underemployed. Nonworkers cite retirement and disability as primary reasons for their status; a few also cite low wages at available jobs as a major reason. Some nonworkers may become part of the labor force if their problems can be addressed. Economic development efforts should take these factors into consideration.

Employment is growing faster than the labor force. Higher employment demand could intensify in-commuting, but also presents the county and its communities with opportunities to attract new residents. Some communities must be prepared to invest in amenities and infrastructure to support such growth because immigration is generally more beneficial to communities than in-commuting.

Immigration is one way of growing the labor force through growth in the population. The county's population growth rate is very low compared to the state's and this is expected to continue through 2010. This presents a challenge to meeting increases in demand for workers. Another strategy to expand the labor force to meet this demand is to focus on hard-to-serve populations, which include persons in poverty, those receiving welfare, those in sparsely populated areas, those on active parole, and out-of-school youth. These people are often outside of the mainstream economy and poor. They usually have difficulty finding work because they have low levels of educational attainment, lack occupational skills, or face geographic or other barriers. Some investment in training, transportation, child care, infrastructure, etc. may be needed to tap these potential workers.

Skills

Jobs require skill sets and it is necessary that jobholders have the relevant skills. High earning occupations typically require more complex skills, which are obtained in the pursuit of the high educational attainment levels that such jobs require. Low earning occupations require fewer and more basic skill sets; some such occupations have no minimum skill set requirements (e.g. dishwashers and maids). Table J.10 shows the percentage of selected occupations in Jefferson County that list a particular skill as primary. We define a primary skill as one in the top 10 of the required skill set for an occupation. O*NET Online provides skill sets for all occupations ranked by the degree of importance, making primary skills more important than others. A particular skill may be more important to and more extensively used in one occupation than another. Table J.10 does not address such cross-occupational skill importance comparisons.

In general, basic skills are most frequently listed as primary. Science is primary for more selected high-earning occupations than selected fast-growing and selected high-demand occupations. A similar pattern holds for critical thinking, complex problem solving, resource management, and

systems skills. These skills require longer training periods and postsecondary education. The county's high-demand and high-growth occupations are dominated by occupations such as Retail Salespersons; Cashiers; Combined Food Preparation and Serving Workers; Waiter and Waitresses; and Medical Assistants. The most relevant skills for such occupations are active listening, reading comprehension, speaking, writing, and service orientation.

Table J.10 Share of Selected Occupations for Which Skill Is Primary

	Selected High-Demand Occupations	Selected Fast-Growing Occupations	Selected High-Earning Occupations
Basic Skills			
Active Learning	36%	60%	76%
Active Listening	81%	83%	80%
Critical Thinking	58%	73%	94%
Learning Strategies	28%	30%	10%
Mathematics	25%	7%	42%
Monitoring	44%	40%	30%
Reading Comprehension	75%	93%	92%
Science	0%	3%	42%
Speaking	67%	80%	66%
Writing	42%	60%	46%
Complex Problem Solving Skills			
Complex Problem Solving	3%	20%	44%
Resource Management Skills			
Management of Financial Resources	3%	0%	14%
Management of Material Resources	3%	3%	2%
Management of Personnel Resources	8%	0%	12%
Time Management	50%	67%	44%
Social Skills			
Coordination	31%	47%	34%
Instructing	33%	57%	16%
Negotiation	6%	0%	12%
Persuasion	6%	7%	12%
Service Orientation	39%	40%	8%
Social Perceptiveness	44%	53%	6%
Systems Skills			
Judgment and Decision Making	19%	27%	78%
Systems Analysis	0%	7%	12%
Systems Evaluation	3%	0%	26%
Technical Skills			
Equipment Maintenance	11%	10%	0%
Equipment Selection	14%	13%	10%
Installation	11%	7%	0%
Operation and Control	8%	0%	6%
Operation Monitoring	6%	3%	4%
Operations Analysis	0%	10%	16%
Programming	0%	7%	6%
Quality Control Analysis	0%	3%	4%
Repairing	11%	3%	0%
Technology Design	0%	10%	8%
Troubleshooting	11%	20%	12%

Note: Definitions for skill types and skills are available at http://online.onetcenter.org/skills/
Source: O*NET Online and Center for Business and Economic Research, The University of Alabama.

Education and Training Issues

Educational attainment in Jefferson County is high compared to the state as a whole. Eighty-one percent of residents age 25 and over have graduated from high school, compared to 75 percent for Alabama. Of that population, a quarter has bachelor's or higher degree; 19 percent of Alabamians do. Skill and education requirements for jobs keep rising and emphasize a strong need to raise educational attainment in the county.

Table J.11 shows the number of selected occupations in the region for which a particular education/training category is most common. In general, high-earning occupations require high educational attainment levels, typically a bachelor's or higher degree. Most of the fast-growing jobs require postsecondary vocational training at the minimum. Most of the high-demand jobs do not require postsecondary training. Short-term to moderate on-the-job training is the minimum requirement for most high-demand occupations.

Table J.11 Number of Selected Occupations with Most Common Education/Training Requirement

Most Common Education/Training Requirements Categories	Selected High-Demand Occupations	Selected Fast-Growing Occupations	Selected High-Earning Occupations
First Professional Degree			14
Doctoral Degree			4
Master's Degree		2	2
Work Experience Plus a Bachelor's or Higher Degree	1	1	13
Bachelor's Degree	3	7	16
Associate Degree	1	4	
Postsecondary Vocational Training	2	5	
Work Experience in a Related Occupation	2	1	1
Long-term On-the-job Training	1	1	
Moderate On-the-job Training	9	4	
Short-term On-the-job Training	17	5	

Note: The last three education and training requirements categories are based on the length of time it generally takes an average worker to achieve proficiency for occupations in which postsecondary training is usually not needed for entry. **Long-term** requires more than 12 months on-the-job training that can include up to four years of apprenticeship, formal classroom instruction, and short-term employer-sponsored training. Trainees are generally considered to be employed in the occupation. **Moderate-term** requires one to 12 months on-the-job experience and informal training. **Short-term** requires up to one month on-the-job experience and training.

Source: O*NET Online; Center for Business and Economic Research, The University of Alabama; and Alabama Department of Industrial Relations.

The finding that basic skills are important for all the selected occupations (Table J.10) presents a challenge for workforce development in the county. It indicates a strong need for training in these skills. Ideally, all high school graduates should possess basic skills so that postsecondary and higher education can focus on other and more complex skill types while enhancing basic skills. Employers should be an integral part of planning for training as they can point out the skill needs of the future and any existing gaps.

High-earning occupations make up a small component of total employment and jobs offered by top employers in the region. Diversifying the county's economy would strengthen it. Economic development should also focus on retaining, expanding, and attracting businesses that provide more high-earning jobs. Workforce development should pay attention to postsecondary and higher

educational systems to ensure a ready and available workforce for these businesses. The higher incomes to graduates of these institutions would help raise personal income for the county. Raising personal income by improving educational attainment and technological skills for a county that has low population and labor force growth rates is an effective economic development strategy.

A highly educated and productive workforce is a critical economic development asset. Together, workforce development and economic development can provide this asset and build a strong well-diversified county economy. Indeed, one cannot achieve success without the other.